

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A radiation image storage panel having a stimulable phosphor layer, and a light-reflecting layer provided thereon, and a protective layer provided on the stimulable phosphor layer on the side opposite to the light-reflecting layer, wherein said stimulable phosphor layer scatters both of a stimulating light and a stimulated emission emitted by said phosphor layer with a scattering length of 5 to 20 μm and comprises a binder and stimulable phosphor particles in the form of tetradecahedrons or globules having a diameter in the range of 2 to 10 μm in a weight ratio of 1:10 to 1:50, said light-reflecting layer scatters a stimulating light with a scattering length of 5 μm or less comprises a binder and a light-reflecting material in the form of particles, said light-reflecting materials being selected from the group consisting of Al_2O_3 , ZrO_2 , MgO , BaSO_4 , SiO_2 , ZnS , ZnO , CaCO_3 , Sb_2O_3 , Nb_2O_5 , $2\text{PbCO}_3[\text{Pb}(\text{OH})_2]$, PbF_2 , BiF_3 , Y_2O_3 , YOCl , $\text{M}^{\text{II}}\text{FX}$ (M^{II} is Ba, Sr, or Ca, and X is Cl or Br), lithopone (BaSO_4+ZnS), magnesium silicate, basic lead silicate sulfate, basic lead phosphate, aluminum silicate, and hollow polymer powder, and the protective layer comprises a polymer material and a filler dispersed in the polymer material and has a haze in the range of 30 to 60%, said filler having a mean particle size of 0.1 to 10 μm .

Claims 2-3. (canceled).

4. (currently amended): The radiation image storage panel of claim 21, wherein said stimulable phosphor particles are contained in the phosphor layer at a packing density of 60 vol.% or more.

Claims 5-6 (canceled).

7. (original): The radiation image storage panel of claim 1, wherein a support sheet is attached to the light-reflecting layer via a cured adhesive layer.

8. (original): The radiation image storage panel of claim 7, wherein the cured adhesive layer is cured in the presence of a curing agent.

9. (original): The radiation image storage panel of claim 8, wherein the curing agent is an isocyanate compound.

10. (original): The radiation image storage panel of claim 7, wherein the cured adhesive layer has a thickness of 1 to 50 μm .

11. (withdrawn) A process for reading a radiation image information out of a radiation image storage panel of claim 1, which comprises the steps of:

placing means for emitting stimulating light and photoelectrically detecting stimulated emission in the vicinity of the radiation image storage panel on a surface side opposite to the light-reflecting layer;

applying a stimulating light to the stimulable phosphor layer of the radiation image storage panel with such stimulating energy that the stimulable phosphor layer emits a stimulated emission in an amount corresponding to 10 to 90% of a saturation level, while moving said means relatively to a position of the radiation image storage panel along a surface of the radiation image storage panel and scanning the stimulating light in a direction differing from a direction of the movement of the means;

detecting the stimulated emission in sequence by the means; and
converting the detected stimulated emission into electric signals corresponding to a radiation image information.

12. (withdrawn) The process of claim 11, wherein the stimulating light is applied to the stimulable phosphor layer of the radiation image storage panel with such stimulating energy that the stimulable phosphor layer emits a stimulated emission in an amount corresponding to 30 to 90% of a saturation level.

13. (withdrawn) The process of claim 11, wherein the means for emitting stimulating light and photoelectrically detecting stimulated emission comprises a line sensor composed of plural photoelectric conversion elements aligned in line.